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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,973	08/02/2001	Robert R. Petrocelli	HEART-001XX	6133
207	7590	02/02/2004	EXAMINER	
WEINGARTEN, SCHURGIN, GAGNEBIN & LEOVICI LLP TEN POST OFFICE SQUARE BOSTON, MA 02109			HWANG, JOON H	
			ART UNIT	PAPER NUMBER
			2172	

DATE MAILED: 02/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/920,973

Applicant(s)

PETROCELLI, ROBERT R.

Examiner

Joon H. Hwang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. The pending claims are 1-31.

#### ***Claim Objections***

2. Claims 14-16 are objected to because of the following informalities: Dependency of claims 14-16 needs to be corrected. Claim 14 should be further depending from claim 11 instead of claim 10. Claim 15 should be further depending from claim 12 instead of claim 11. Claim 16 should be further depending from claim 13 instead of claim 12. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5, 10-22, 24, 25, 28, 29, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sitka et al. (U.S. Patent No. 6,349,373).

With respect to claim 1, Sitka discloses accessing data from an external source (lines 16-35 in col. 3, lines 4-30 in col. 4, and fig. 1). Sitka discloses associating and grouping the data into an information group (lines 25-33 and 50-63 in col. 2, lines 17-36 in col. 3, lines 31-50 in col. 4, and lines 13-39 in col. 5) concerning segmenting the data into an information group. Sitka discloses storing the information group onto an archival

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storage media, the information group being stored on the archival storage medium so that the information group is capable of being independently accessed (lines 4-24 and lines 34-49 in col. 2, lines 17-36 in col. 3, and lines 3-38 in col. 6). Sitka does not explicitly disclose a unique identification to the group. However, Sitka discloses the group associated with a patient's name, a physician's name, personal information, etc, which can be utilized as a unique identification element in order to distinguish the group from other groups (lines 10-15 in col. 3 and line 66 in col. 7 thru line 17 in col. 8). Sitka also discloses an entry for each customer/group in a database (lines 16-36 in col. 3 and lines 45-58 in col. 5), which teaches each group being distinguished. Therefore, based on Sitka, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a unique identification element, such as a name and personal information, to a group in the system of Sitka in order to distinguish a group from other groups.

With respect to claim 2, Sitka discloses optical disks (DVDs) as archival storage media (lines 31-50 in col. 4).

With respect to claim 3, Sitka does not explicitly disclose a self contained database file for a group. However, Sitka discloses archiving a "study" that a customer's specific information, such as the customer's name, a physician' name, medical history, and personal information, is associated with a group of the customer on archival storage media (lines 22-38 in col. 1, lines 10-15 in col. 3, and line 66 in col. 7 thru line 17 in col. 8) in order to provide more information about a group besides images of the group. Therefore, based on Sitka, it would have been obvious to one having

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ordinary skill in the art at the time the invention was made to utilize a self contained database file element in Sitka's archival storage media in order to provide more information, such as medical history and personal information, about a group/customer.

With respect to claim 5, Sitka discloses a customer's name, a physician's name, and a modality type, which teach meta-data, and image data in a group (lines 10-35 in col. 3).

With respect to claim 10, Sitka discloses recording information groups on archival storage media as mid-term (near-line) and long-term (off-line) storage (lines 3-38 in col. 6 and fig. 2).

With respect to claim 11, Sitka discloses short-term (on-line) storage as a first subset of archival storage media (lines 3-38 in col. 6 and fig. 2).

With respect to claim 12, Sitka discloses mid-term (near-line) storage as a second subset of archival storage media (lines 3-38 in col. 6 and fig. 2).

With respect to claim 13, Sitka discloses long-term (off-line) storage as a third subset of archival storage media (lines 3-38 in col. 6 and fig. 2).

With respect to claim 14, Sitka discloses a diskette (lines 31-40 in col. 4), which teaches a hard disk element.

With respect to claim 15, Sitka discloses a jukebox storage (lines 39-45 in col. 1).

With respect to claim 16, Sitka discloses a shelf storage (lines 3-38 in col. 6).

The limitations of claim 17 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

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With respect to claim 18, Sitka discloses a personal computer (lines 16-35 in col. 3 and figs. 1-3).

With respect to claim 19, Sitka discloses a workstation for the external source (lines 16-35 in col. 3, lines 4-30 in col. 4, and figs. 1-3).

With respect to claim 20, Sitka discloses a network compatible device for the external source (lines 16-35 in col. 3, lines 4-30 in col. 4, and figs. 1-3).

With respect to claim 21, Sitka discloses short-term (on-line) storage, mid-term (near-line) storage, and long-term (off-line) storage (lines 3-38 in col. 6 and fig. 2).

With respect to claim 22, Sitka discloses a diskette (lines 31-40 in col. 4), which teaches a hard disk element.

With respect to claim 24, Sitka discloses a jukebox storage (lines 39-45 in col. 1).

With respect to claim 25, Sitka discloses a shelf storage (lines 3-38 in col. 6).

With respect to claim 28, Sitka discloses optical disks (DVDs) as archival storage media (lines 31-50 in col. 4).

The limitations of claim 29 are rejected in the analysis of claim 3 above, and the claim is rejected on that basis.

With respect to claim 31, Sitka discloses recording information groups on archival storage media as mid-term (near-line) and long-term (off-line) storage (lines 3-38 in col. 6 and fig. 2).

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5. Claims 4 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sitka et al. (U.S. Patent No. 6,349,373) in view of Renk et al. (U.S. Patent No. 6,606,171).

With respect to claim 4, Sitka discloses the claimed subject matter as discussed above. Sitka further discloses the DICOM protocol for communication. Sitka does not explicitly disclose DICOM-3. However, Renk discloses DICOM-3, which is the well-known standard, defining a data structure that enables related images (data) to be grouped together via a linking technique (line 62 in col. 25 thru line 6 in col. 26, line 59 in col. 26 thru line 35 in col. 27, and lines 48-59 in col. 27). Therefore, based on Sitka in view of Renk, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the well-known DICOM-3 standard of Renk to the system of Sitka in order to create a data structure that links related data together in a group.

The limitations of claim 30 are rejected in the analysis of claim 4 above, and the claim is rejected on that basis.

6. Claims 6, 7, 9, 23, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sitka et al. (U.S. Patent No. 6,349,373) in view of Cooke, Jr. et al. (U.S. Patent No. 6,574,629).

With respect to claim 6, Sitka discloses the claimed subject matter as discussed above. Sitka further discloses a PACS for a picture archiving and communicating system (line 13 in col. 1 thru line 24 in col. 2). Sitka does not explicitly disclose an

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image player in archival storage media. However, Cooke discloses a PACS software and applications preferably stored in memory and alternatively these applications can be stored in a floppy disk or a CD (lines 41-67 in col. 7 and lines 1-33 in col. 8) for retrieving image data. Therefore, based on Sitka in view of Cooke, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize Cooke's teachings of storing applications for retrieving image data in a CD to the system of Sitka for an alternative way of storing applications for retrieving data.

With respect to claim 7, Sitka discloses the claimed subject matter as discussed above. Sitka further discloses retrieving a group containing all of a customer's previous studies and associated metadata, such as the customer's name, a physician's name, a modality type, and medical history (lines 13-38 in col. 1, lines 10-35 in col. 3, lines 31-50 in col. 4, and line 66 in col. 7 thru line 17 in col. 8). Sitka does not explicitly disclose an application for interpreting metadata in archival storage media. However, Cooke discloses a PACS software and applications preferably stored in memory and alternatively these applications can be stored in a floppy disk or a CD (lines 41-67 in col. 7 and lines 1-33 in col. 8) for retrieving data. Therefore, based on Sitka in view of Cooke, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize Cooke's teachings of storing applications for retrieving data in a CD to the system of Sitka for an alternative way of storing applications for retrieving data.

The limitations of claims 9 and 27 are rejected in the analysis of claim 6 above, and these claims are rejected on that basis.



With respect to claim 23, Sitka discloses the claimed subject matter as discussed above except a redundant array of independent disk. However, Cooke discloses a redundant array of independent disk (RAID) for archival storage media (lines 10-64 in col. 9) for an alternative storage. Therefore, based on Sitka in view of Cooke, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize RAID of Cooke to the system of Sitka for alternative archival storage media.

7. Claims 8 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sitka et al. (U.S. Patent No. 6,349,373) in view of Jian et al. (U.S. Patent No. 6,199,072).

With respect to claim 8, Sitka discloses the claimed subject matter as discussed above except an index file on archival storage media. However, Jian discloses an optical disk (an archival storage medium) containing a created archive directory file for an index of data stored on the disk (lines 52-58 in col. 2, line 1 in col. 3 thru line 13 in col. 4, and fig. 2). Therefore, based on Sitka in view of Jian, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the archive directory file of Jian to the system of Sitka in order to have archival storage media containing indexed and organized information.

The limitations of claim 26 are rejected in the analysis of claim 8 above, and the claim is rejected on that basis.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joon H. Hwang whose telephone number is 703-305-6469. The examiner can normally be reached on 9:30-6:00(M~F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E BREENE can be reached on 703-305-9790. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Joon Hwang  
1/23/04



JEAN M. CORRIELLUS  
PRIMARY EXAMINER